Motivational Factors Effecting Monthly Physical Fitness Assessments of 315th Training Squadron Non-Prior Service Airmen

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Introduction

Physical fitness is one of the four pillars of the United States Air Force's Comprehensive Airman Fitness program. Every Airman in the Air Force is charged with maintaining physical fitness standards. By cultivating a culture of being physically fit, the Air Force ensures members are healthy, productive, and prepared to support the demands of combat operations. Physical fitness is a critical measure of readiness and directly supports the Air Force's mission to fly, fight, and win.

Purpose of the Study

The purpose of this survey was to determine if scores were noticeably different based on the time of day at which physical fitness assessment were administered. The survey was also used to measure if participants believed their motivational factors to achieve 85% or better fluctuated with the time of day that fitness assessments were administered. If members score an 85% or higher on the assessment, they are authorized to conduct physical training on their own and not have to participate in organized squadron physical training, which is held at 0345 during summer schedule and 1715 during winter schedule.

Method

The 13-question survey was made available to 195 Non-prior Service (NPS) Airmen in the 315th Training Squadron at Goodfellow Air Force Base, Texas. Of those contacted, 59 responded (29 males & 30 females), yielding a 30% response rate. Questions focused on the participant's opinion regarding their personal motivation to score 85% or better, if they felt fitness assessment timing has an effect on assessment scores, and demographic data. Additionally, fitness assessment component and composite scores of 315th NPS Airmen were collected over a five month period and analyzed to determine if any noticeable scoring differences occurred between assessments administered during the summer schedule (0345) and those conducted during the winter schedule (1715).

Results

It was initially determined that the overall passing rate for both males and females was lower during the September cycle than any other cycle **(Tables 1 & 2)**. One-way analysis of variance (ANOVA) was then used to assess if significant mean differences ($p < .05$) existed between 1-mile run time, push-ups, and sit-ups by assessment cycles. The average 1-mile run times for males and females were significantly faster in early and late August respectively compared to the slowest in September; marginal improvement was also observed in October and November **(Figure 1)**. The mean number of push-ups remained relatively steady across all five cycles for both genders. Although no significant differences were found, minimal increases were observed beginning with the early August cycle **(Figure 2)**. The mean number of sit-ups performed by males increased significantly from the initial assessment in early August to the final assessment in November while females experienced a noticeable decrease in the late August and September cycles **(Figure 3)**.

Table 1
Overall scores by cycle – Male Airmen

	Total tested	<75% Failure	≥85-90% Passing	≥90% Excellent	Percentage scoring ≥85%
Early August	183	4	24	142	90%
Late August	205	6	48	133	88%
September	225	13	56	124	80%
October	220	16	30	162	87%
November	198	10	28	146	87%

Table 2
Overall scores by cycle– Female Airmen

	Total tested	<75% Failure	≥85-90% Passing	>90% Excellent	Percentage scoring ≥85%
Early August	66	2	14	44	87%
Late August	76	7	5	61	86%
September	92	10	35	29	69%
October	96	7	15	61	79%
November	85	3	18	52	82%

Figure 1
Mean Run times (in seconds) by gender

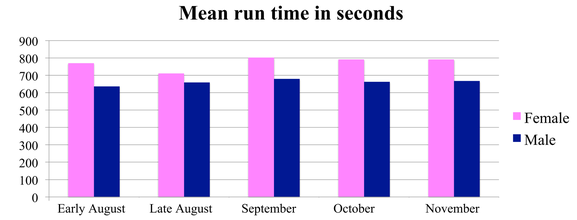


Figure 2
Mean number of push-ups by gender

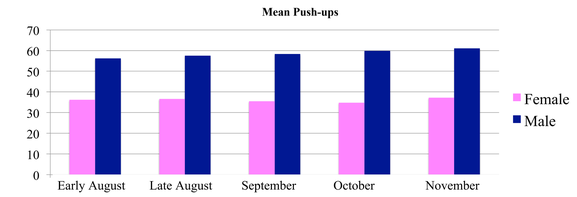
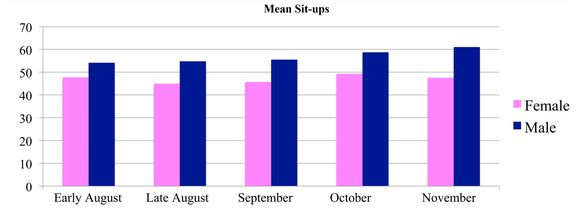


Figure 3
Mean number of sit-ups by gender



Conclusions

Compilations of the collected data lead to the conclusion that the time of day when physical fitness assessments are conducted does not have a significant impact on scores. Because no distinct variations were noted between the summer cycle (August & September) assessment scores and those from the winter cycle (October & November), it is likely any discernible difference in scores can be attributed to the personal motivational factors driving each Airman. Therefore it is important for every Airman to find and maintain his or her own drive in order to remain combat ready.